(September to December, 1930. January to March, 1931, overseas.)

## Parents' National Educational Union.

## The Parents' Union School.

(Address: The Director, Parents' Union School, Ambleside.

Motto: "I am, I can, I ought, I will."

(He shall) "pray for the children to prosper in good life and good literature."—(Dean Colet.)

#### FORMS VI. & V.

Pupils' Names....

#### Scripture.

VI. & V. The One Volume Bible Commentary, by J. R. Dummelow (Macmillan, 10/-), (a) Introduction, pp. xxiv.-xl.; cxiii-cxxii.; (b) Isaiah. chapters 24-66, pp. 433-453; (c), Hebrews, pp. 1012-1030.

\*The Gospel according to S. Mark, with introduction and commentary by A. W. F. Blunt, B.D. (Oxford Press, 4/6), chapters 1-6. The Saviour of the World, Vol. II. (P.N.E.U. Office, 3/-), pp. 1-54, with Bible text (see Index) and notes from "Dummelow." Use The New Testament in the Revised Version (Cambridge Press, 2/-). Palestine in Picture, by Canon Raven (Heffer, 10/6), may be used.

For Sunday reading (optional):

VI. The Clash of Colour, by Basil Mathews (Edinburgh House Press, 2/-). The Christian Outlook in the Modern World, by the Archbishop of Armagh (Hodder & Stoughton, 6/-), pp. 131-254. Stanley's The Eastern Church (Dent, 2/-), pp. 325-379. A Short History of our Religion, by D. C. Somervell (Bell, 5/-), pp. 1-100. The Testament of Beauty, by Robert Bridges (Oxford Press, 7/6), pp. 131-192.

<sup>†</sup> The 118th term of work set since the Parents' Union School began.

V. Stanley's Sinai and Palestine (Murray, 4/-), pp. 179-241. The Religions of Mankind, by S. M. E. Trood (Christophers, 3/6), pp. 50-101, with India and her Peoples, by F. D. Walker (C.M.S., 2/-). Bunyan's Holy War (R.T.S. 3/6). Bishop Masterman's Sunday Epistles (S.P.C.K., 3/6).

Composition. (The daily "reports" also come under this heading.) VI. & V.\* (See Abbott & Seeley, Part II.) A good précis. Essays on subjects suggested by the term's work in Literature, History, Science, or, on topics of the day. Occasionally, write verses, these must scan (see Abbott & Seeley, Part III.). Third Leaders from the Times (Arnold, 2/6) will be found useful.

English Language.

Both Forms, parse and analyse every week.

VI. & V.\* English Lessons for English People, by E. A. Abbott & J. R. Seeley (Seeley, 5/-), (VI.), pp. 190-216, (V.), pp. 1-35, with questions set.

V.\* Trench's On the Study of Words (Kegan Paul, 3/6), Lectures I. & II., "Introductory Lecture" and "On the Poetry of Words."

Literature (Books set include holiday and evening reading).

VI. & V. (a) Eschylus' Prometheus Bound (Dent, 2/-).

- VI. (b) Carlyle's Past and Present. Book II. (Dent, 2/-). (c) Pauli's Pictures of Old England (Routledge, 2/-), chapters 1 & 2. (d) The Travels of Sir John Mandeville (Dent, 2/-). (e) St. François d' Assise, by Sabatier (Hachette, direct, 28 fres. = 5/8). (f) Church's Essays: Dante (Routledge, 2/-). (g) Reynard the Fox, Caxton's (modernised) text (Routledge, 7/6). (h) For reference: A History of English Literature, by E. Legonis, Vol. I. (Dent, 10/6), pp. 62-98. (i) Come Hither, by Walter De la Mare (Revised Edition, Constable, 10/6). (i) Oxford Book of English Verse (Oxford Press, 8/6).
- V.\* (b) Shakespeare's Hamlet (Blackie, 6d.). (c) Milton's Samson Agonistes, (d) Paradise Lost, Book V., (e) The Sonnets (all in Milton's Poems, Oxford Standard Authors, 3/6). (f) Macaulay's Sir William Temple (Blackie, 1/-). (g) Scott's Peveril of the Peak (Dent, 2/-). (h) Passages from Pepys' Diary (Blackie, 1/-). (i) Anthology of Modern Verse (Methuen, 2/6). (j) The Book of English Poetry (Jack, 7/6), contemporary, poets (1642-1688). For reference only, English Literature, by A. J. Wyatt (University Tutorial Press, 3/-).

Keep a Commonplace Book for passages that strike you particularly; learn a hundred lines of poetry; be able to give some account of what you have read in each book,

with sketches of the chief characters.

English History.

VI. Trevelyan's History of England Part I. (Longmans, 4/6), pp. 162-221 (1189-1327), or, the same period in Green's History, Vol. I. (Dent, 2/-). English Wayfaring Life in the Middle Ages, by J. J. Jusserand (Benn, 12/6), read from pp. 22-222.

V.\* Green's Short History of the English People, Vol. II.,

pp. 500-634 (Dent, 2/-), (1642-1688).

General History.

VI. The Legacy of the Ancient World, by W. G. De Burgh (Macdonald & Evans, 15/-), pp. 155-219. A Short History of France, by Victor Duruy, Vol. I. (Dent, 2/-), pp. 243-294 (1180-1328).

V. Ancient Times, by J. H. Breasted (Ginn, 10/6), pp. 533-599 (264-30 B.C.). Medieval and Modern Times,\* by T. R. Robinson (Ginn, 10/6), (1927 edition), contemporary European history only from pp. 387-398 (1643-1688).

VI. & V. Continue a Book of Centuries (P.N.E.U. Office, 1/9, or better, 2/6; see illustrated leaflet by Miss Bernau, P.N.E.U. Office, 6d.), putting in illustrations from all the history studied during the term (Bible, English, General). Visit museums. Make summaries of dates and events. Use maps. Make charts. Smith's Classical Dictionary (Dent, 2/6). An Atlas of Ancient and Classical Geography, (Dent, 2/6).

Every-Day Morals and Economics.

VI. Plato's Trial and Death of Socrates: Phado, pp. 161-213 (Macmillan, 3/6). Economics for the General Reader,

by Henry Clay (Macmillan, 4/6), pp. 1-113.

V. Ourselves, Book II. (P.N.E.U. Office, 3/6), pp. 104-136. The Rights and Duties of a Citizen, by H. E. Malden (Methuen, 2/6), chapters 13-17. Milton's Areopagitica (Blackie, 1/-).

Geography.

VI. Seeley's Expansion of England (Macmillan, 3/6), Course I., Lectures 6 and 7. Read from summaries of The Simon Commission Report. In Search of our Ancestors,

by Mary Boyle (Harrap, 10/6), pp. 92-178.

V. The English Speaking Nations, by G. W. Morris and L. S. Wood (Oxford Press, 3/6), pp. 1-69, with Ambleside Geography Book V. (Kegan Paul, 5/-), for reference and map work. Frequented Ways, by M. J. Newbigin (Constable, 15/-), pp. 1-58. Huxley's Physiography (revised 1924, Macmillan, 5/-), pp. 79-138. Mort's An Elementary Practical Geography (Blackie, 2/6), pp. 38-52. Philips' Pocket Surveyor (Philip & Son, 2/6), will be found useful.

VI. & V. The World-Wide Atlas (Johnston, Edinburgh, 15/-). Know from atlas (gazetteer) something about foreign regions coming most into note in the newspapers, and in connection with history, etc., studied. Summarise

readings by memory maps on blackboard. Some account of the Physiography of your neighbourhood, with diagrams.

VI. The Mechanism of Nature, by E. N. da C. Andrade (Bell, 6/-), pp. 1-85. Modern Conceptions of Electricity, by C.

R. Gibson (Seeley, 12/6), pp. 189-278.

V. Scientific Ideas of To-day, by C. R. Gibson (Seeley, 6/-), pp. 15-51. Geikie's Geology (revised 1915, Macmillan, 7/6), pp. 1-47. Some account of the geology of your neighbourhood, drawing sections. The Ordnance Survey Geological Map of the British Isles (Stanford, 2/-). Geological Map of Europe (Oxford Press, 2/6).

[C.S.C. 2nd year's work only. V.\* Elements of Natural Science, Part I., by W. B. Smith (Arnold, 5/-), pp. 108-

160 instead of Geology.]

Biology, Botany, etc.

VI. The Study of Animal Life, by J. Arthur Thomson (Murray, 6/-), pp. 158-218. The Romance of the Human Body, by R. C. Macfie (Gardner, Darton, 5/-), pp. 131-174.

V. Botany,\* by D. Thoday (Cambridge Press, 7/6), pp. 112-179. [2nd Year C.S.C. only: \*Applied Botany, by J. S. M. Ellis (Hodder & Stoughton, 4/6), pp. 156-240, instead of Scientific Ideas.] For suggestions for outdoor work: Dr. Caver's Botany\* (University Press, 8/6) will be found useful, see questions following chapters xxvii., x and xxv. (geology, roots and conifers).

Specimens must be found, if possible, for all botanical work, and experiments must be made. Keep a Nature Note-Book with flower and bird lists (P.N.E.U. Office,

2/3).

VI. The Universe Around Us, by Sir James Jeans (Cambridge Press, 12/6), pp. 227-343.

V. The Story of the Heavens, by Sir R. S. Ball (Cassell, 15/-),

pp. 1-68 (chapters 1 and 2).

Follow newspaper reports on astronomical subjects. Make charts of the changes in position of the constellations visible. Stars at a Glance (Philip, 1/6).

French.

VI. & V.\* L'Enseignement Littéraire du Français, by J. Molmy, Vol. II. (Hachette, 3/-), lessons 76-82. Take a French paper (list can be obtained from Hachette).

VI. Sabatier's St. François d' Assise (Hachette, direct, 28 fres. = 5/8). The Oxford Book of French Verse (Oxford Press, 8/6). Le Monde où l' on S' Ennuie, by E. Pailleron (Methuen, 1/9).

V.\* Molière's Le Malade Imaginaire (Hachette, 10d.). A Book of French Verse (Oxford Press, 4/-), learn two poems.

VI. Allen's Latin Grammar (Clarendon Press, 3/-), pp. 3-15, 118-121; 134-135. Limen, Part II. (Murray, 2/6), pp. 268-279; 173-207. A Book of Latin Poetry (Methuen, 2/-). Cicero's De Senectute (Macmillan, 2/-), pp. 36-49.

V.\* Limen (Murray, 2/6), pp. 1-95, or, (second year), pp. 173-207. Livy, Book IX. (Cambridge Press, 3/6) §§ 1-16. Dies Romani, by W. F. Witton (Arnold, 2/-), may be

used for practice in translation.

German.

VI. & V. A Public School German Primer (Macmillan, 4/-), VI.: revise pp. 102-130 and 255-256. V.: pp. 64-77 inclusive. Learn poems from Deutsche Lyrik (Macmillan,

VI. Schiller's Wilhelm Tell (Harrap, 4/6).

V. Freytag's Die Journalisten (Harrap, 2/6).

Italian.

VI. & V. Italian Lessons and Readings, by C. U. Clark (Harrap, 4/6): (VI.) read from Part II., using Part I. and Appendices for studies in Grammar, (V.) lessons 16-19, inclusive. Italian Irregular Verbs (Hachette, 1/-). The Hundred Best Italian Poems (Gowans & Gray,

VI. Read six cantos from Dante's Il Purgatorio (Dent, 2/-). I Miei Ricordi, by Massimo D' Azeglio (order direct from Truslove and Hansom, 1/8), pp. 116-185.

V. All' Aria Aperta, by Renate Fucini (order direct from

Truslove & Hansom, 1/8), pp. 123-178.

Arithmetic.

VI. & V.\* Dr. Ballard's Fundamental Arithmetic, Book VI. (London University Press, 1/1), pp. 69-96; Teacher's Book VI. (2/3) is also essential. For mental work, Arithmetical Dictation, Book VI., Ex. 401-420.

or (second year) Book VII. (1/4), pp. 62-90; 95 and 97, and Problems M. to R., pp. 108-112, with Teacher's Book

VII. (2/6).

Geometry and Trigonometry.

VI. & V.\* A Shorter School Geometry, by H. Hall and F. Stevens (Macmillan, 4/6), pp. 232-252, or (2nd year), pp. 270-277, and revise section V. The School Set of Mathematical Instruments (P.N.E.U. Office, 2/-). [2nd year C.S.C. Numerical Trigonometry, Part I., by A. W. Siddons and R. T. Hughes (Cambridge Press, 1/9), chapters III. and IV.].

VI. & V.\* A School Algebra, by H. Hall, Parts I. and II. (Macmillan, 4/6), pp. 219-223, 240-244, and 250-254, or, (second year), 345-362, and 385-394.

Art Studies.

VI. The Painters of Florence, by Julia Cartwright (Murray, 6/-), chapters 1-3, inclusive. A Short Critical History of Architecture, by H. Heathcote Statham, Vol. III. (Batsford, 6/-), chapter vi.

V. \*Schools of Painting, by M. Innes (Methuen, 6/6), chapters 11, 25, and 26. \*The Story of Architecture, by P. L. Waterhouse (Batsford, 6/-), pp. 105-148. For reference: Styles of Architecture, by A. Stratton (Batsford, 1/6).

VI. & V. Six reproductions of works by Millet\* (P.N.E.U. Office, 2/- the set), see September P.R.

#### Reading.

The Speaking Voice, by Emil Behnke (Curwen & Son, 7/6), pp. 40-65. The Art of Reading and Speaking, by Canon Fleming (Arnold, 3/6).

#### Music Appreciation.

VI. & V. The work of César Franck: see article, and records suggested under Our Work, in the August P.R. The Enjoyment of Music, by A. W. Pollitt (Methuen, 5/-).

#### Music.

VI. & V.\* (a) Studies of Great Composers, by Sir C. H. Parry (Routledge, 6/-): Mozart. (b) An Introduction to Music, by H. E. Piggott (Dent, 3/6). (c) Pollitt's The Enjoyment of Music. (d) Foundations of Practical Harmony and Counterpoint, by R. O. Morris (Macmillan, 7/6), four chapters each term; see preface. (e) For revision, Elements of Music, by F. Davenport (Longmans, 1/6). (f) \*Mozart's Pianoforte Sonata in D Major, No. 9. (Curwen, Universal Edition, No. 4408, 9d.).

#### Singing.

Two French songs; two German songs or two Italian songs.
Two National or Folk Songs,\* direct from Novello & Co. (2d. each), or, from The Oxford Song Book, Vol. II. (Oxford Press, 7/6).

#### Drill, etc.

A Manual of Free-Standing Movements, by H. D. Hassum (Hachette, 1/8). Syllabus of Physical Training for Schools, 1927, Supplement No. 12 (H.M. Stationery Office, 4d.). Ex-students take House of Education Drills. Six Country Dances: The English Country Dance, Graded Series, Vols. VI.-VIII. (Novello, 3/each); music and instructions for six dances in each volume. Hockey; Lacrosse.

Work: Arts and Crafts.

The Basis of Design\*, by Walter Crane (Bell, 10/-), pp. 160-221. Studies in lettering, textures, colour: see Drawing, Design and Craftwork, by F. J. Glass (Batsford, 12/-), pp. 132-152. Make Christmas presents in leather-work: Leathercraft, by G. J. Shaw (Dryad, 4/-). Studies of animals: Animal Drawing and Anatomy by Edwin Noble (Batsford, 10/6). Help the "Save the Children Fund," 26 Gordon Street, London, W.C.1.

Valuable suggestions will be found for the teaching of all Handicrafts and Drawing in the following: Applied Art, by Pedro J. Lemos (Batsford, 28/-). It is not advisable that stereotyped courses should be followed.

Do some definite house and garden work. Practical Housecraft: (1) Housewifery, (2) Laundry, (3) Cooking (Longmans, 6d. each). Art in Needlework, by Lewis F. Day and M. Buckle (Batsford, 7/6). Darn and mend each week. Make a garment.

The Cambridge University School Certificate Examination may be taken on the work set in the P.U.S. Programme for Form V. For particulars write to the Director, Parents' Union School, Ambleside, and see subjects marked.\*\*

Teachers who are sending in candidates for the Cambridge Certificate Examination are asked to communicate with the Director as some modifications in the work are sometimes necessary.

N.B. 1.—Members are asked to remember that an average pupil should cover the whole programme suitable for his age. The lighter portions of the Literature (novel, play and poems) are read for amusement in the evenings and also in the holidays. Music, Handicrafts, Fleid Work, Dancing, Nature Note Books, Century Books, are taken in the afternoons. Form VI. work should not be attempted unless the full two years' work has been done in Form V. (Average ages in V., 15 and 16).

N.B. 2. —For principles and methods of teaching the various subjects see *Home Education*, 5/6, *School Education*, 5/-, *Parents and Children*, 5/- (P.N.E.U. Office). A record of work should be kept (see leaflet H).

N.B. 3.—In grammar (English and foreign) and in mathematics there must be no gaps (see leaflet G). Pupils, if not at the stage indicated, must either (a) begin the book set if the subject is new, or (b) continue the subject in the set book from the point they have reached; but they will be subject in the set book from the point they have not covered the work of the Form. handicapped in the future if they have not covered the work of the Form.

N.B. 4.—Each pupil should have a copy of the books, etc., marked \* and a set of the Pictures and materials. One copy of the other books is and a set of the Pictures and materials. It is essential to have at least one copy of the latest edition, sufficient. It is essential to have at least one copy of the latest edition, sufficient the set pages and examination questions are taken. The

books from "Drawing" onwards are advisable but optional. The work of the Programmes cannot be fully carried out unless each child keeps a Nature Note Book and a Century Book.

N.B. 5 — Members are particularly asked to follow the notes under Our Work and in Notes and Queries in the Parents' Review.

N.B. 6.—The current Programmes are for Members of the School only and must not be lent. Specimen copies of old Programmes can be obtained by members from the Director, Parents' Union School, Ambleside.

N.B. 7.—All books, P.U.S. colours, stationery, etc., may be obtained from the Secretary of the P.N.E.U., 26, Victoria Street, London, S.W. 1.

N.B. 8.—All letters about the School and Programmes, except book orders, should be sent to The Director, Parents' Union School, Ambleside, Westmorland. Members are asked to send the School Fee direct to Ambleside. The P.N.E.U. subscription should be sent to the London Office, also money for books with the enclosed Order Form; orders should be sent as early as possible.

## To Ex-P.U.S. Members and Ex-Students of the House of Education taking the P.U.S. Reading Course.

Bibliographies for further reading will be found in The Legacy of the Ancient World, Medieval and Modern Times, Trevelyan's History, Green's History, The History of English Literature, The Study of Animal Life.

# Parents' National Educational Union.

## The Parents' Union School.

(Address: The Director, The Parents' Union School, Ambleside.)

Motto: "I am, I can, I ought, I will."

#### FORMS VI. & V.

Scripture.

I. VI. & V. 1. Comment on the following, quoting from the context,—(a), "Behold, a king shall reign in righteousness," (b), "The wilderness and the solitary places shall be glad," (c), "Comfort ye My

people."

2. What is said in the Book of Isaiah of Cyrus as God's agent? Show how our Lord fulfils the description of "the ideal servant."

II. 1. Comment on "an High Priest for ever after the order of Melchizedek," showing in what points the author of the Epistle to the Hebrews vindicates the supremacy of Christ.

2. Write notes on (a), the authorship, (b), the literary history of St. Mark's Gospel.

3. Trace the gradual recognition of our Lord's authority in the first six chapters of this Gospel.

#### Composition.

VI. & V. 1. An essay upon one of the following,—(a), The Indian Conference and its aims as suggested by two of the speakers, (b), That the circulation of wealth through taxation is not a substitute for the circulation of wealth through industry, (c), The Art of Persia (i.), as reflecting the country of Persia and (ii.), its influence in Asia.

2. Some lines, which must scan, on one of the following,—
(a). Reynard the Fox, (b). "Feuella," (c), mists and colour in November.

English Language.

- VI. & V. 1. Analyse, parsing the words in italics,-"I stood tiptoe upon a little hill; The air was cooling, and so very still That the sweet buds, which with a modest pride Pull droopingly, in slanting curve aside, Their scanty-leaved and finely tapering stems, Had not yet lost their starry diadems."
- VI. 2. Write notes on the following metres, finding examples from your anthology, and scanning them, -(a), iambic lines of two accents, (b), an Alexandrine, (c), rhyming iambic pentameter.
  - 3. Write notes on the sonnet form, with illustrations.
- V. 2. Give synonyms for the following words, and illustrate their differences of meaning, - resentment, knowledge, famous.
  - 3. "A single word is often a concentrated poem." What have you to say of the "concentrated poetry" in the following words, - desultory, stormy petrel, halcyon, tribulation.

Literature. (Answer three questions only.)

- VI. & V. 1. Sketch, as far as you can, the story of "Prometheus Bound." Give the apologia of Prometheus as he uttered it from the rock, and show what part Io takes in the play.
- VI. 2. Write an essay on "Abbot Samson," according to Carlyle.
  - 3. Show briefly what you have gathered about Dante and his work from Dean Church's essay.
  - 4. Write upon St. Francis of Assisi, his life and mission.
  - 5. Comment upon the historical interest of (a), Reynard the Fox, or, (b). The Travels of Sir John Mandeville, and give a characteristic passage from the
- V. 2. Discuss the character of Hamlet. Quote lines where you can, illustrating your points.
- V. 3. Narrate briefly the plot of Samson Agonistes, and show how the character of Samson is developed.
  - 4. Give the argument of Paradise Lost, Book V,, quoting lines that have struck you.
  - 5. Write a scene for acting from Peveril of the Peak.
  - 6. Mr. Pepys meets Sir Geoffrey Hudson. Write Mr. Pepys' description of the meeting.

#### English History.

- VI. 1. With the reign of Edward I. begins modern England." Explain fully. Dates.
  - 2. Write upon "The Universities of the Middle Ages."
  - 3. Give some account of the roads and bridges in England in the Fourteenth Century.
- V. (Answer three questions only.)
  - 1. Write notes on Cromwell's policy in connection with (a), the New Model Parliament, (b), foreign affairs. Dates.
  - 2. Sketch the character and policy of (a), Sir William Temple, or, (b), Shaftesbury.
  - 3. "Science suddenly became the fashion of the day." Give some account of this beginning of English
  - 4. Trace the course of Puritan influence, since the fall of Puritanism, in the work of Milton.

#### General History.

- VI. 1. "The political genius of Alexander is most evident in his deliberate purpose to fuse into one the Hellenic and the Oriental spirit." By what steps and with what success did he carry out his purpose?
  - 2. Trace briefly the foundations of the Roman State and the establishment of the Republic.
  - 3. Give some account of the civilisation of the Thirteenth Century in Europe.
- V. 1. Describe briefly the Roman conquest of the Mediterranean World under Hannibal. Dates.
  - 2. "Rome, the conqueror, was herself conquered by the Greeks." Explain and illustrate.
  - 3. Compare and contrast the character and the position of Louis XIV. and James 1. What have you to say of Louis as a patron of art and literature?

## Every-Day Morals and Economics.

- VI. 1. Socrates put before Cebes his "own experiences" as to Physical Science and the teaching of Anaxagoras. Trace the argument as far as you are able.
  - 2. "Specialisation is the principle on which the whole modern organisation of industry is based." Discuss this, and show where it has led.
- V. 1. An essay on "Will and Wilfulness," with examples taken from your term's reading.
  - 2. Show that the duties of a British citizen extend far beyond the circle of duties imposed by the State. What have you to add about the League of Nations?
  - 3. By what arguments does Milton vindicate a free press?

Geography.

VI. 1. "(Europe) is a group of states, of which the five westernmost have been acted upon by a steadfast gravitation towards the New World." Give some account of the part taken by Great Britain in this gravitation.

2. Write an account of the Neolithic Age, as shown by (a), excavation in Switzerland, (b), standing remains in

England.

V. 1. Show how the mountains of Europe control the journey of a traveller from England to Italy. Sketch map.

2. Discovery and trade went hand in hand in the Sixteenth Century. Explain fully.

3. Write upon the composition of the atmosphere.

4. What instruments are necessary for recording weather observations? Explain fully the use of one of them. and give instructions for daily weather recording.

#### General Science.

VI. 1. Write briefly on what you have gathered from your reading this term about "Sound and Vibration."

2. What ideas may a general reader gather (a), as to the Theory of Relativity and its practical value to Science, or, (b), as to terrestrial magnetism?

V. 1. "There are three different conditions of matter." Explain and illustrate. What is to be said of a fourth condition?

2. "Springs leave their mark in geological history." Explain, giving examples.

or, 2. "Water finds its own level." Show what important consequences follow on this property.

### Biology, Botany, etc.

VI. 1. Write upon the functions of the white and the red blood cells in the body. 2. An essay on "animal behaviour."

V. 1. Describe fully the structure of a leaf. Diagrams.

2. In what important respects do growing regions of roots and stems differ? What do you understand by rhizome, tuber, corm, bulb?

3. (2nd year, C.S.C.). Write upon "seed dispersal."

#### Astronomy.

VI. 1. Snm up briefly what you have gathered this term as to (a), the origin of the solar system, or, (b), the physical constitution of stars.

2. What thoughts have you gathered from your reading this term upon Energy?

V. 1. Explain, with a rough diagram, the construction and use of a reflecting telescope.

2. Write notes on one of the following, -(a), spectrum analysis, (b), solar prominences.

French. (All answers to be written in French.)

VI. 1. Give a résumê of Le Monde ou L'on S' Ennuie.

2. Translate into French from The Maid of Orleans (Pictures of Old England), page 289, "It happened . . . maiden Jeanne."

VI. & V. 3. Write notes on the use of the Imperfect Subjunctive

V. 1. Describe the part played by Argan in Le Malade Im-

2. Translate into French, page 111, "Oh, things of my childhood . . . the sea" (J. Molmy's book).

#### Latin.

VI. 1. Give rules for gender in each of the five declensions. Mention some of the most important exceptions.

2. Translate (1) If you were to go to Sparta you would see many high hills. (2) If Cæsar was not great, who was? (3) If they had fought more bravely the city would not have been taken.

3, Cicero, de Senectute, (a), Translate Ch. XXI., § 77 (Non enim video . . auctoritas). (b), Read the Latin again, then write a narration in Latin

#### V. (Second Year.)

1. Form adverbs from the following adjectives, and write their comparative and superlative,-altus, largus, multus, facilis, brevis.

2. Translate: (1) A fierce struggle was maintained against the Gauls. (2) What was he to do? He bought the horse at a very great price. (3) They sent envoys to discuss terms of peace.

3. Livy, Book IX., (a), Translate Ch. 2, §§ 6-8 (Duae ad Luceriam . . . evadendum). (b), Read the Latin again, then write a narration in Latin.

#### V. (First Year.)

1. Write the four principal parts of: mitto, iubeo, sumo, sentio, vivo.

2. Translate: (1) Hannibal sent many soldiers to attack the city. (2) If you cross that rampart you will be able to see twenty fields. (3) He went out from Rome and came to Capua.

3. Same as V. (2nd year), question 3.

#### German.

VI. & V. 1. Give a résumé, in German, of (VI.), the play of Wilhelm Tell, (V.), of the plot of Die Journalisten.

2. Translate into German (VI.), Siepmann, page 258, No. 10, (V.), Siepmann, page 244, Reproduction,

or, Italian.

1. (VI.), Write a short letter in Italian. (V.), Write a short paragraph about Venice.

VI. & V. 2. Translate into Italian page 100, Exercise B, 7-12. 3. Write, in Italian, a short narration from one of the books you have read.

#### Arithmetic.

VI. & V. (Second Year.)

1. Evaluate  $(1.00025)^2 \times (.99986)^2$  to 5 decimal places.

2. By logarithms find to the nearest pound the Compound Interest of £1825 in 4 years at 3½%.

3. How much 5% stock must I sell at 120 to buy £780 of 4% stock at 91? What will be the change in income?

V. (First Year.)

 $3 \cdot 2 \times 1 \cdot 125 \times 2 \cdot 22$ 

1. Simplify:  $\cdot 37 \times 6 \cdot 25 \times \cdot 024$ 

2. Find the Banker's Discount on a bill of £150 due 146 days hence at 31%. (Days of Grace not to be added.)

3. 5% of a consignment of tea was damaged. The remainder was 50 tons 7 cwt. What was the original

#### Geometry.

VI. & V. (Second Year.)

1. Prove that the areas of similar triangles are proportional

to the squares on corresponding sides.

2. In a triangle ABC, XY, parallel to BC, cuts AB and AC at X and Y in the ratio 3:1. Find the ratio of the area of triangle AXY to the area of quadrilateral

3. A straight line AB is bisected at X and produced to a point Y such that AYYB=3AX2. Prove that  $BY = \frac{1}{2}AB$ ,

or, 3. (Trigonometry.) Prove the Sine Rule, i.e., that  $\frac{a}{\sin A}$  $\frac{b}{\sin B} = \frac{c}{\sin C}$ . Hence solve the triangle ABC,

given  $A = 68^{\circ} 48'$ ,  $B = 44^{\circ} 24'$ , b = 2 cm.

V. (First Year.)

1. Draw a square equal in area to a given rectangle. Give

2. If a straight line 3.5 cm. in length is divided externally in the ratio 7:2, calculate the lengths of the segments.

3. If the vertical angle of a triangle is bisected internally, the bisector divides the base internally into segments which have the same ratio as the other sides of the triangle.

#### Algebra.

V1. & V. (Second Year.)

I. Prove that (a), the logarithm of a product is equal to the sum of the logarithms of its factors, (b), the logarithms of the pth power of a number is equal to the logarithm of the number multiplied by p. Hence express log 2166 in terms of log 2 and log 3,

2. If y varies inversely as  $x^2$ , and when y=3, x=2, find y when x = 6, and x when y = 12.

3. The time of going from one place to another varies directly as the distance and inversely as the velocity. Two men walk distances that are in the ratio 3:4 in lengths of time proportional to 2 and 3. Find the ratio of their velocities.

V. (First Year.) 1. Solve the equation:  $\frac{x-6}{x-8} - \frac{x-5}{x-7} = \frac{x-1}{x-3} - \frac{x}{x-2}$ 

2. By completing the square solve the equation:  $\frac{2x-1}{3} = \frac{1}{x} - \frac{2x+3}{2}$ 

3. Find the graph of:  $y=3x+\frac{x^2}{3}$  and find its minimum value.

#### Art Studies.

VI. & V. 1. Describe, with a rough sketch of the composition, "The Sower," by J. F. Millet.

2. Write a short account (VI.), of Giotto, (V.), of Velasquez and his work.

VI. 3. Give some account of English Gothic architecture, with examples taken from cathedrals you have visited if possible.

V. 3. Write a short account of the characteristic features of Saracenic architecture, mentioning where they are to be seen.

#### Painting.

1. A suitable design with lettering for a leather covered book of Christmas carols.

2. "The fall of the leaf." An autumn study of colour.

#### Music Appreciation.

What compositions by César Franck have you heard this term? Write fully on one of them.

#### Reading. \*

Father to choose an unseen (a), essay, (b), poem.

Parents to report upon practical examination.

Singing.\*

Father to choose an English, a French, and an Italian song.

Drill. \*

Report progress.

Work, Crafts, etc. \*

Outside friend to examine. List of handicrafts completed to appear on Parents' Report.

N.B. 1.—Examination to begin on Monday, December 8th. Papers to be posted on Saturday, December 13th, with no other enclosure. Schools may send in papers up to 22nd.

N.B. 2.—Subjects thus indicated (\*) to be marked on the Parents' or Teacher's Report according to Regulations, and marks to be added up. For scale of values see head of Report Form.

N.B. 3.—Please note carefully the Regulations as to the number of papers to be sent in by schools.

N.B. 4.—Members Overseas may send in examinations at the end of any two of the three terms in the year.

Members are asked to state on the Parents' or Teachers' Report Form (a), how the pupil has worked during the term; (b), if there has been any handicap on account of illness during the term; (c), the reason for the omission of subjects in the examination.